

Introduction to Philosophy of Science (PHI 373)

Hall of Languages 111, Tuesday/Thursday 5pm-6:20pm

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Office Hours: Tuesday 3-3:50pm; Thursday 2-2:50pm

COURSE DESCRIPTION ([LINK TO SCHEDULE OF COURSE READINGS](#))

Does science tell us how the world really is, or does it merely describe and predict the macroscopic phenomena that we see with our eyes? What are the laws of nature? How does science purport to give not just descriptions but also *explanations* of physical phenomena? How do values figure into science, if at all? In this course, we will consider these questions and many more. We will see how investigating these questions improves our understanding of both science itself and our position in the universe.

Historical description, from our esteemed course catalog: “Central concepts in the analysis of science, such as law, explanation, theory, and confirmation. Controversies surrounding the nature of theoretical entities and the character of scientific change.”

LEARNING GOALS:

- Learn something about the nature of reality and the nature of the nature of reality!
- Learn how to schematize arguments into precise premise-conclusion form
- Learn how to object to a relatively weak premise of an argument, and object to your objection
- Become a more clear, thoughtful writer (for all those future emails and work memos)
- Develop public speaking skills (for all those future meetings and presentations!)
- Become comfortable with critical dialogue in real time, learning how to be polite always.

NO REQUIRED COURSE MATERIALS

No course fees or additional costs! All readings will be posted on the *Blackboard* course webpage. If you too are a fan of the printed word, readings can be bound at a FedEx.

KEY ASSIGNMENT DUE DATES (PUT THESE IN YOUR PHONES!!!)

Roughly every other Thursday, **an attempt** will be due on the Levels System (by 11pm), and **a draft** of that attempt will be due in-class for peer review (5pm). Note that you are not allowed to attempt Level *n* (e.g. Level 3) until you have passed Level *n*-1 (e.g. Level 2).

Thurs. Sep. 5th	No draft due this week	attempt one due 11pm
Thurs. Sep. 12th	No draft due this week	attempt 1.5 (restricted to Level 1 attempts) due 11pm
Thurs. Sep. 19th	Draft due in class!	2 nd attempt (Level 2 only if passed Level 1) due 11pm
Thurs. Oct. 3rd	Draft due in class!	3 rd attempt (Level 3 only if passed Level 2!) due 11pm
Thurs. Oct. 17th	Draft due in class!	4 th attempt (Level 4 only if passed Level 3!) due 11pm

Thurs. Oct 31st	Draft due in class!	5 th attempt due 11pm
Thurs. Nov. 14 th	IN-CLASS EXAM!!!	IN-CLASS EXAM!!!
Thurs. Nov. 21st	Draft due in class!	6 th attempt due 11pm

COURSE REQUIREMENTS

1. *Levels System* (four levels, 6.5 lives; 45%): See attached details! Ultimately, you will enjoy this more than any other alternative, e.g. writing three full-size papers. I promise!
2. *Peer Review & Drafts exercise* (four drafts & peer reviews; 5%): during most days that Level Attempts are due, enjoy peer reviewing a peer's draft. Unsurprisingly, earning these points **requires having a draft** of your own! You have one freebie absence from this activity (so you can earn full points just by participating four times!). In the event that you complete Level 4 early, you'll just be on deck for a final peer review on Oct. 31st or Nov. 21st.
3. *Revisions* (four revisions; 5%): due the Friday after receiving your last assessed attempt. Incorporate the feedback on your last Level Attempt and resubmit. Woah improvement!
4. *In-class exam* (November 14th; 25%): It will comprise a mix of multiple-choice questions and short answer. I will provide details in advance. We aim to defeat ChatGPT.
5. *Presentation and discussion leading* (16%: 10% presentation, 6% discussion leading): 20-30 minutes of fun-in-the-sun! Prepare a handout on an argument(s) from a course reading. Showcase a 10-15 minute presentation, and then lead a 10-15 minute discussion. Practice communication skills that will take you far in corporate America! If you so desire, you'll have the opportunity to take this activity for a test-drive in an ungraded trial-version beforehand.
6. *Participation in Discussions and Lecture* (4%): earn 0.25 points every time you contribute substantially to a class discussion, especially those led by your peers! To earn full points, it suffices to contribute non-trivially 16 times over the course of the semester, out of our 27 lectures. Note that if you never contribute *at all* but have near perfect attendance, you'll earn 50% on participation. *Fine print*: Hunt reserves the right to modify this participation policy if engagement tapers off toward the end of the semester while your peers are still presenting. See **subtraction policy** below! Substantially participating beyond 16 classes can recoup some lost attendance points!
7. *A note on attendance*: per University policies, attendance is mandatory (and I do not consider myself above the law in this regard). Rather than track excusable absences, you have **five freebie absences**. These are to be used for sick days, religious observances, extra-curricular travel, emergencies, or days missed because you joined the class late (excluding the first day of class). Unless you end up being sick for multiple weeks or have an extended, multi-week emergency, religious observance(s), or sports travel, there are ***no excused absences***.

For instance, if you use your five freebies just for funsies early in the semester and then get sick a couple days later, you don't get more freebies. Your subsequent absences will count against your grade (even if they were for legit reasons). Each absence beyond these five freebies **subtracts 0.25 points** from your score (up to -5.5 points). Again: there are (essentially) no excused absences (barring sustained, multi-week, well-documented emergencies, religious observances, or travel for sports)!

GRADE BREAKDOWN:

- ♥ Levels System: 45%
- ♥♥ Revisions: 5%
- ☺ Presentation/Discussion Leading: 16%
- Peer Review & Drafts: 5%
- ☐ In-Class Exam: 25%
- ☺ Participation in Discussions: 4%
- Absences beyond five: -0.25% a piece (up to -5.5%)*

GRADING TABLE AND CORRESPONDING GRADE POINTS:

$90 \leq A^- < 94 \leq A$ (3.66 and 4 grade points, respectively)
 $80 \leq B^- < 83 \leq B < 87 \leq B^+$ (2.66, 3.0, and 3.33 grade points, respectively)
 $70 \leq C^- < 73 \leq C < 77 \leq C^+$ (1.66, 2.0 and 2.33 grade points, respectively)
 F (i.e. no credit) $< 60 \leq D$ (i.e. 1 grade point) < 70

Course Schedule & Readings

Readings listed for a class meeting should be completed *before* that meeting. You are expected to discuss readings in class. All readings will be linked on the *Blackboard* course webpage.

The reading schedule is [linked here](#). It may be updated as the semester progresses, particularly with article supplements that can supply additional arguments for your Level Attempts.

ACADEMIC INTEGRITY:

Students convicted of cheating in this course will receive *at most* a C. Forms of cheating include (but are not limited to) hiring someone to complete an assignment for you, using an AI algorithm to partially write or complete an assignment, and using someone else's work to complete an assignment (e.g. submitting work from past versions of this course). If there are some other fancy ways to cheat, Hunt would appreciate learning about them. Tell him and you'll receive some good will!

All generative-AI tools are prohibited in this course because their use inhibits achievement of the course learning objectives. This policy applies to all stages of project and writing processes including researching, brainstorming, outlining, organizing, and polishing. Do not use Generative-AI tools to create any content (i.e., images and video, audio, text, code, etc.). If you have any questions about a feature and whether it is considered Generative-AI, ask your instructor.

What are some rationales for not cheating? Instrumentally, there will be an in-class exam where it will be very difficult to cheat. Better to practice these skills the old-fashioned way! More distant in your futures (but still instrumentally): if you land a job through cheating your way through school, you could end up being uncomfortable conversing with your co-workers in meetings or solving problems in real time with them. You might worry that your co-workers will eventually expose you as a fraud. Basically, it'd be super annoying to not be able to solve problems in real time and always need to google or chatGPT things. Imagine having a coworker who refused to answer even simple questions before consulting a bot. That would be pretty strange, and you'd probably think they're unqualified for their job. At any rate, it's no way to live your life!

Note that Hunt is using proprietary software to detect the use of advanced AI algorithms in completing assignments. Cheaters, you will be found out!

DIVERSITY, DISABILITY, AND INCLUSIVITY:

In all course-related activities and communications, you will be treated with respect. I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, military backgrounds, national origins, religious affiliations, sexual orientations, ability, and other visible and non-visible differences. All members of this class are expected to help create a welcoming and inclusive environment for every other member of the class who respects this policy.

If you are a student with learning needs that require special accommodation, contact The Center for Disability Resources (CDR) at disabilityresources@syr.edu as soon as possible, to make an appointment to discuss your needs and to obtain an accommodations letter. Please e-mail me as soon as possible to set up a time to discuss your learning needs. As someone who has used these services in the past, you can assume that I will be HIGHLY sympathetic! A [link to CDR resources](#).

Syracuse University values diversity and inclusion; we are committed to a climate of mutual respect and full participation. There may be aspects of the instruction or design of this course that result in barriers to your inclusion and full participation in this course. I invite any student to contact me to discuss strategies and/or accommodations (academic adjustments) that may be essential to your success and to collaborate with the Center for Disability Resources (CDR) in this process. If you would like to discuss disability-accommodations or register with CDR, please visit their website at <https://disabilityresources.syr.edu/>, call (315) 443-4498, or email disabilityresources@syr.edu for more detailed information.

LINKS TO ADDITIONAL SYRACUSE UNIVERSITY POLICIES:

- [Code of Student Conduct](#)
- [Academic Integrity Documents and Report Process](#) (and a free quiz! Gee whiz!)
- [Religious Observances Notification Policy](#)
- [Orange Success](#)
- [Use of Turnitin](#)

If you are interested in some introductory philosophy of science books frequently used in courses like this one, see below:

- Alan Chalmers (1999), *What Is This Thing Called Science?* Third Edition. St. Lucia: University of Queensland Press.
- Peter Godfrey-Smith (2003), *Theory and Reality: An Introduction to the Philosophy of Science*. Chicago: University of Chicago Press.
- Thomas Kuhn (1970), *The Structure of Scientific Revolutions*. Second Edition (with Postscript). Chicago: University of Chicago Press. (A classic text and a blast to read).

ACADEMIC INTEGRITY (PART 2):

As a pre-eminent and inclusive student-focused research institution, Syracuse University considers academic integrity at the forefront of learning, serving as a core value and guiding pillar of education. Syracuse University's Academic Integrity Policy provides students with the necessary

guidelines to complete academic work with integrity throughout their studies. Students are required to uphold both course-specific and university-wide academic integrity expectations such as crediting your sources, doing your own work, communicating honestly, and supporting academic integrity. The full Syracuse University Academic Integrity Policy can be found by visiting class.syr.edu, selecting, “Academic Integrity,” and “Expectations and Policy.”

Upholding academic integrity includes the protection of faculty’s intellectual property. Students should not upload, distribute, or share instructors’ course materials, including presentations, assignments, exams, or other evaluative materials without permission. Using websites that charge fees or require uploading of course material to obtain exam solutions or assignments completed by others, which are then presented as your own violates academic integrity expectations in this course and may be classified as a Level 3 violation. All academic integrity expectations that apply to in-person assignments, quizzes, and exams also apply online.

Students found in violation of this policy are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered. Students may not drop or withdraw from courses in which they face a suspected violation. Any established violation in this course may result in course failure regardless of violation level.

BLACKBOARD:

This class will use the Blackboard Learning Management to house the syllabus, course content, links to external course materials, assignments, quizzes, exams, feedback, and grades. When submitting materials that the University’s Blackboard Learning Management System is on Eastern Time. Information about Blackboard is available on [Answers Blackboard](#); alternatively, you can contact Information Technology Services by sending an email to help@syr.edu, calling 315.443.2677, or in-person at the ITS Service Center, located at 1-227 CST in the Life Sciences Complex. Business hours for the Service Center can be found on the ITS Website at http://its.syr.edu/its_service_center/

DISCRIMINATION OR HARASSMENT:

The University does not discriminate and prohibits harassment or discrimination related to any protected category including creed, ethnicity, citizenship, sexual orientation, national origin, sex, gender, pregnancy, disability, marital status, age, race, color, veteran status, military status, religion, sexual orientation, domestic violence status, genetic information, gender identity, gender expression or perceived gender.

Any complaint of discrimination or harassment related to any of these protected bases should be reported to Sheila Johnson-Willis, the University’s Chief Equal Opportunity & Title IX Officer. She is responsible for coordinating compliance efforts under various laws including Titles VI, VII, IX and Section 504 of the Rehabilitation Act. She can be contacted at Equal Opportunity, Inclusion, and Resolution Services, 005 Steele Hall, Syracuse University, Syracuse, NY 13244-1120; by email: titleix@syr.edu; or by telephone: 315-443-0211.